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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/779,409	02/13/2004	Martin Litorell	81044627	7768

22844 7590 07/15/2004

FORD GLOBAL TECHNOLOGIES, LLC.  
SUITE 600 - PARKLANE TOWERS EAST  
ONE PARKLANE BLVD.  
DEARBORN, MI 48126

EXAMINER

ESHETE, ZELALEM

ART UNIT	PAPER NUMBER
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3748

DATE MAILED: 07/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/779,409	Applicant(s) LITORELL, MARTIN	
	Examiner Zelalem Eshete	Art Unit 3748	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 8-20 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>02/13/2004</u> . | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

Claims 1-7 has been cancelled by the preliminary amendment filed on 02/13/2004.

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 8,12-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Voss et al. (6,332,445).

Regarding claim 8: Voss discloses a control method for selecting and adjusting valve lift in an internal combustion engine with at least two cylinder groups (see numerals 8,9), the method comprising: a first mode of operation to operate at least one valve in a first group of cylinders, said at least one valve in said first group of cylinders in a first valve lift mode, said first group of cylinders comprised of cylinders that are consecutive in a combustion sequence of said engine (see figure 1, numeral 8; figure 2); a second mode of operation to operate said at least one valve in said first group of cylinders in a second valve lift mode (see column 3, lines 55 to 61); a third mode of operation to operate at least one valve in a second group of cylinders, said second group of cylinders in a first valve lift mode, said second group of cylinders comprised of

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cylinders that are consecutive in a combustion sequence of said engine, said second group of cylinders different from said first group of cylinders (see figure 1, numeral 9; figure 2); a fourth mode of operation to operate said second group of cylinders in a second valve lift mode (see column 3, line 55 to column 4, line 10); selecting between said first and said second modes of operation during a crank angle interval where valves in said second cylinder group are opened and closed, and activating said selected mode; and selecting between said third and said forth modes of operation during a crank angle interval where valves in said first cylinder group are opened and closed, and activating said selected mode (see column 3, lines 1 to 9).

Regarding claim 14: Voss discloses an internal combustion engine with a first and a second group of cylinders the internal combustion engine (see figure 1) comprising: a first group of cylinders comprised of cylinders that are consecutive in a combustion sequence of said engine (see numeral 8), at least one cylinder of said first group of cylinders having a valve with at least two lift modes (see figure 2; column 3, line 55 to column 4, line 10); a second group of cylinders comprised of cylinders that are consecutive in said combustion sequence of said engine (see numeral 9), at least one cylinder of said second group of cylinders having a valve with at least two lift modes (see figure 2; column 3, line 55 to column 4, line 10), said second group different from said first group; a first means for operating said first cylinder group a first or second valve lift mode; a second means for operating said second cylinder group in a first or second valve lift mode (see column 3, lines 1 to 9).

Regarding claims 12,17: Voss discloses said valves are electromechanical valves (see numeral 16).

Regarding claims 13,15: Voss discloses the valves are mechanically actuated valves (see figure 2).

Regarding claim 16: Voss discloses said mechanically actuated valve includes a locking device, and a first and a second position of said locking device, corresponding to a unlocked and a locked position, respectively (see column 3, lines 45 to 55).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 9-11,18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Voss in view of Davis et al. (6,474,278).

Voss discloses the claimed invention as recited above; however fails, to disclose said internal combustion engine is an in-line six/four-cylinder engine or is an eight-cylinder engine.

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However, Davis teaches presently automotive companies manufacture in-line six/four-cylinder engine or is an eight-cylinder engine (see column 1, lines 18 to 25).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Voss' system by providing in-line six/four-cylinder engine or is an eight-cylinder engine as taught by Davis in order to apply the principles to various engines available in the market.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zelalem Eshete whose telephone number is (703) 306-4239. The examiner can normally be reached on Monday to Friday.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Denion can be reached on (703) 308-2623. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Zelalem Eshete  
Examiner  
Art Unit 3748

Z

  
THOMAS DENION  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3700